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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,672	07/15/2003	Michael Binnard	PA0518-US / 11269.56	8643

7590 05/06/2005

The Law Office of Steven G. Roeder  
5560 Chelsea Avenue  
La Jolla, CA 92037

EXAMINER
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LE, DANG D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/620,672

Applicant(s)

BINNARD, MICHAEL

Examiner

Dang D. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-39 and 41-71 is/are pending in the application.  
4a) Of the above claim(s) 36-39, 41-49 and 57-67 is/are withdrawn from consideration.  
5) ☒ Claim(s) 50-56 is/are allowed.  
6) ☒ Claim(s) 20-29, 31-35 and 68-71 is/are rejected.  
7) ☒ Claim(s) 30 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 20-35 and 68-71 have been considered but are moot in view of the new ground(s) of rejection.

### ***Election/Restrictions***

2. Amended claims 36-39 and 41-49 and newly submitted claims 57-67 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the claims require the temperature adjusters as control means for patentability, classified in class 310, subclass 53.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 36-39, 41-49, and 57-67 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "both the first passageway and second passageway" encircling "at least a portion of the conductor component" recited in claim 69 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 69 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. It is not clear how "both the first passageway and second passageway encircle at least a portion of the conductor component" as claimed in claim 69. The specification and Figures 4A and 4B shows the first passageway and second passageway being inside the conductor component (454).

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Campolong (3,318,253).

Regarding claim 20, Campolong shows a circulation system for a mover (that moves slurries from 20 to 19) that includes a first inlet (85) and a second inlet (78), the circulation system comprising: a fluid source (in motor 14) that direct: a first fluid (slurries in chamber 22) into the first inlet (85) and a second fluid (liquid in chamber 31) into the second inlet (78), the fluid source including a first conduit (80-61-81) that transports the first fluid (slurries in chamber 22) toward the first inlet (85) and a second conduit (75-77-66) that transports the second fluid toward the second inlet (78), wherein at least a portion (66) of the second conduit (75-77-66) is encircled by the first conduit (65).

Regarding claim 21, it is noted that Campolong also shows all of the limitations of the claimed invention.

8. Claims 68 and 71 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirano et al. (5,698,070).

Regarding claims 68 and 71, Hirano et al. shows a mover combination comprising:

- A mover including a conductor component (53), a magnet component (52), a first passageway (48) having a first inlet, and a second passageway (58) having a second inlet, wherein the first passageway (48) encircles at least a portion of the second passageway (58) and wherein at least one of the first passageway (48) and the second passageway encircles at least a portion of the conductor component (53), and
- A circulation system (Figure 1) including a fluid source that directs a first fluid to the first inlet and a second fluid to the second inlet, wherein a temperature of the first fluid at the first inlet is different than a temperature of the second fluid at the second inlet.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 22, 23, 26-29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campolong in view of Ogura et al. (3,906,261).

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Regarding claims 22 and 23, Campolong shows all of the limitations of the claimed invention except for the 5 or 10 degrees Celsius temperature different between the first and second fluid.

Ogura et al. uses Freon (boiling point at 48 C) and water at room temperature (24 C) for the purpose of avoiding the use of impellers.

Since Campolong and Ogura et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to select the 5 or 10 degrees Celsius temperature different between the first and second fluid as taught by Ogura et al. for the purpose discussed above.

Regarding claims 26-29 and 31, it is noted that Campolong and Ogura et al. also show all of the limitations of the claimed invention

11. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campolong.

Regarding claims 24 and 25, Campolong shows all of the limitations of the claimed invention except for the encircling percentage of 10 percent of 50 percent.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the encircling percentage of 10 percent of 50 percent, since it has been held that discovering an optimum value of a result effective

variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

12. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campolong in view of Ogura et al. and further in view of Yuan (5,777,403).

Regarding claims 32-35, the mover of Campolong modified by Ogura et al. shows all of the limitations of the claimed invention except for the voice coil, stage assembly, exposure apparatus.

Yuan shows the voice coil, stage assembly, and exposure apparatus for the purpose of making an actuator.

Since Campolong, Ogura et al., and Yuan are all from the same field of endeavor, the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the voice coil, stage assembly, exposure apparatus as taught by Yuan for the purpose discussed above.

13. Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al. in view of Okudaira et al. (5,705,029).

Regarding claim 69, Hirano et al. show all of the limitations of the claimed invention except for both the first passageway and the second passageway encircle at least a portion of the conductor (the examiner assumes that both the first passageway and the second passageway are in the at least a portion of the conductor as shown in Figure 4A and 4B).



Okudaira et al. shows both the first passageway (11) and the second passageway (Figure 3) are in the at least a portion of the conductor (3) for the purpose of reducing heat in the conductor.

Since Hirano et al. and Okudaira et al. are all from the same field of endeavor, the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make both the first passageway and the second passageway in the at least a portion of the conductor as taught by Okudaira et al. for the purpose discussed above.

14. Claim 70 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano et al. in view of Kakechi et al. (4,565,601).

Regarding claim 69, Hirano et al. show all of the limitations of the claimed invention except for the first passageway and the second passageway being substantially coaxial.

Kakechi et al. shows the first passageway and the second passageway being substantially coaxial (Figure 3) for the purpose of reducing heat.

Since Hirano et al. and Kakechi et al. are all from the same field of endeavor, the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the first passageway and the second

passageway substantially coaxial as taught by Kakechi et al. for the purpose discussed above.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Allowable Subject Matter***

16. Claims 50-56 are allowed.

17. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: the record of prior art does not show a mover combination comprising a mover

having a magnet component, a conductor component including a conductor array, a first passageway including a first inlet, and a second passageway including a second inlet, wherein the first passageway encircles at least a portion of the conductor array and the conductor array encircles at least a portion of the second passageway; and a circulation system including a temperature of the first fluid at the first inlet is different than a temperature of the second fluid at the second inlet as recited in claim 50. Claim 30 recites similar feature.

***Information on How to Contact USPTO***

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D. Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

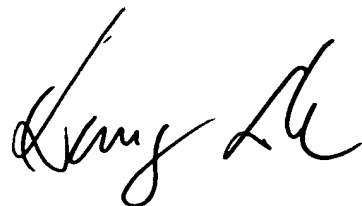
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Kung Lu". The signature is fluid and cursive, with the first name "Kung" and the last name "Lu" clearly distinguishable.

DANGLE  
PRIMARY EXAMINER